

### AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

(a) subjecting a solution comprising prothrombin and factor Factor X to a virus inactivation procedure, by adding solvent and detergent to said solution, wherein the solvent is tri-n-butyl phosphate (TNBP);

(b) loading the product of step (a) onto an anion exchange medium wherein the prothrombin and Factor X bind to the anion exchange medium;

(c) washing the anion exchange medium to remove TNBP and detergent reagents used for the virus inactivation procedure in step (a); and

(d) activating the Factor X prothrombin on the anion exchange medium to form Factor Xa thrombin by addition of metal ions, wherein the Factor Xa then activates the prothrombin to yield thrombin wherein thrombin with a specific activity of at least 2000 International Units per mg of protein is generated.

2. **(Previously presented)** The method according to claim 1, wherein the solution comprising prothrombin and factor X is a prothrombin complex.

3. **(Currently amended)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

(a) subjecting a solution comprising factor X to a virus inactivation procedure, by adding solvent and detergent to said solution, wherein the solvent is TNBPtri-n-butyl phosphate;

(b) loading the product of step (a) onto an anion exchange medium wherein the Factor X binds to the anion exchange medium;

(c) washing the anion exchange medium to remove TNBP and detergent reagents used for the virus inactivation procedure in step (a);

(d) activating the factor X on the anion exchange medium to form factor Xa by addition of metal ions; and

(e) loading virus-inactivated prothrombin onto the anion exchange medium such that the activated Factor Xa converts prothrombin to thrombin, wherein thrombin with a specific activity of at least 2000 International Units per mg of protein is generated.

4. **(Previously presented)** The method according to claim 1 or 3 wherein the metal ions are divalent metal ions.

5. **(Previously presented)** The method according to claim 4 wherein the divalent metal ions are magnesium and/or calcium ions.

6. **(Previously presented)** The method according to claim 1, further comprising the step of

(e) selectively eluting the thrombin from the anion exchange medium.

7. **(Previously presented)** The method according to claim 6, further comprising the steps of

(f) passing the product of step (e) through a filter which retains pathogens;

(g) adding a divalent metal ion and a carbohydrate to the product of step (f), and

(h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

8-13. **(Canceled)**

14. **(Previously presented)** The method according to claim 3, further comprising the step of

(f) selectively eluting the thrombin from the anion exchange medium.

15. **(Previously presented)** The method according to claim 14, further comprising the steps of

(g) passing the product of step (f) through a filter which retains pathogens;

(h) adding a divalent metal ion and a carbohydrate to the product of step (g), and

(i) freeze-drying and heat-treating the product of step (h) to inactivate viruses.

16. **(Currently amended)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

(a) loading a solution comprising prothrombin and factor X onto an anion exchange medium; and

(b) subjecting the prothrombin and factor X to a virus inactivation procedure by adding solvent and detergent to said prothrombin and factor X on the anion exchange medium, wherein the solvent is TNBP tri-n-butyl-phosphate;

(c) washing the anion exchange medium to remove the TNBP and detergent reagents used for the virus inactivation procedure in step (b); and

(d) activating the Factor X on the anion exchange medium to form Factor Xa by addition of metal ions, wherein the Factor Xa then activates the prothrombin to yield thrombin, ~~wherein thrombin with a specific activity of at least 2000 International Units per mg of protein is generated.~~

17. **(Previously presented)** The method according to claim 16 wherein the metal ions are divalent metal ions.

18. **(Previously presented)** The method according to claim 17 wherein the divalent metal ions are magnesium and/or calcium ions.

19. **(Previously presented)** The method according to claim 16, further comprising the step of

(e) selectively eluting the thrombin from the anion exchange medium.

20. **(Previously presented)** The method according to claim 19, further comprising the steps of

(f) passing the product of step (e) through a filter which retains pathogens;

(g) adding a divalent metal ion and a carbohydrate to the product of step (f), and

(h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

21. **(Currently amended)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

(a) loading a solution comprising Factor X onto an anion exchange medium; and

(b) subjecting the Factor X to a virus inactivation procedure by adding solvent and detergent to said Factor X on the anion exchange medium, wherein the solvent is TNBP ~~tri-n-butyl-phosphate~~;

(c) washing the anion exchange medium to remove the TNBP and detergent reagents used for the virus inactivation procedure in step (b);

(d) activating the Factor X on the anion exchange medium to form factor Xa by addition of metal ions; and

(e) loading virus-inactivated prothrombin onto the anion exchange medium such that the activated Factor Xa converts prothrombin to thrombin, ~~wherein thrombin with a specific activity of at least 2000 International Units per mg of protein is generated.~~

22. **(Previously presented)** The method according to claim 21 wherein the metal ions are divalent metal ions.

23. **(Previously presented)** The method according to claim 22 wherein the divalent metal ions are magnesium and/or calcium ions.

24. **(Previously presented)** The method according to claim 21, further comprising the step of

(e) selectively eluting the thrombin from the anion exchange medium.

25. **(Previously presented)** The method according to claim 24, further comprising the steps of

(f) passing the product of step (e) through a filter which retains pathogens;

(g) adding a divalent metal ion and a carbohydrate to the product of step (f), and

(h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

26. **(Previously presented)** The method according to Claim 1, wherein step (d) is performed without addition of phospholipids.

27. **(Previously presented)** The method according to Claim 3, wherein step (d) is performed without addition of phospholipids.

28. **(Previously presented)** The method according to Claim 16, wherein step (d) is performed without addition of phospholipids.

29. **(Previously presented)** The method according to Claim 21, wherein step (d) is performed without addition of phospholipids.